'79-# ... 7829

BRENDA MINES LTD.
EXPLORATION GROUP

REPORT on GEOLOGICAL and GEOCHEMICAL SURVEYS on the MOUNTAIN MEADOW PROPERTY

Burton, B.C.

Slocan Mining District

N.T.S. 82K/4W

Long. 117° 47' Lat. 50° 05'

Paul C. Bankes

February, 1980

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FIGURES

I INTRODUCTION

The first recorded mining in the area occurred west of the property on the Sky Lark crown grant. In the early 1900's, a 50 foot adit and several drifts were driven along a north-south quartz vein in an argillite host. Eighty tons of silver lead ore were shipped to the smelter at Trail. At approximately the same time, on the south side of the Mountain Meadow Property, a 75 foot adit was driven along a quartz vein on the Promistora crown grant. Only 9 tons of gold ore were shipped to the Trail smelter.

From the early 1900's through to present, the area has been well prospected for bonanza type mineralization.

In 1974, Mr. H. Murphy and Mr. F. Jordan discovered and staked a small zone of sericite and arsenopyrite within the quartz diorite. Assay results on this zone showed gold values of interest.

After the completion of a short trenching program, the claims were allowed to lapse. The showing was restaked by Mr. Murphy and Mr. Jordan as the Tim 1 - 4 mineral claims in 1978. Prospecting of the surrounding area lead to the discovery of several small molybdenite showings and the subsequent staking of 43 additional units, under the direction of Brenda Mines who optioned the property in 1978.

II PROPERTY DESCRIPTION

a) Location and Access

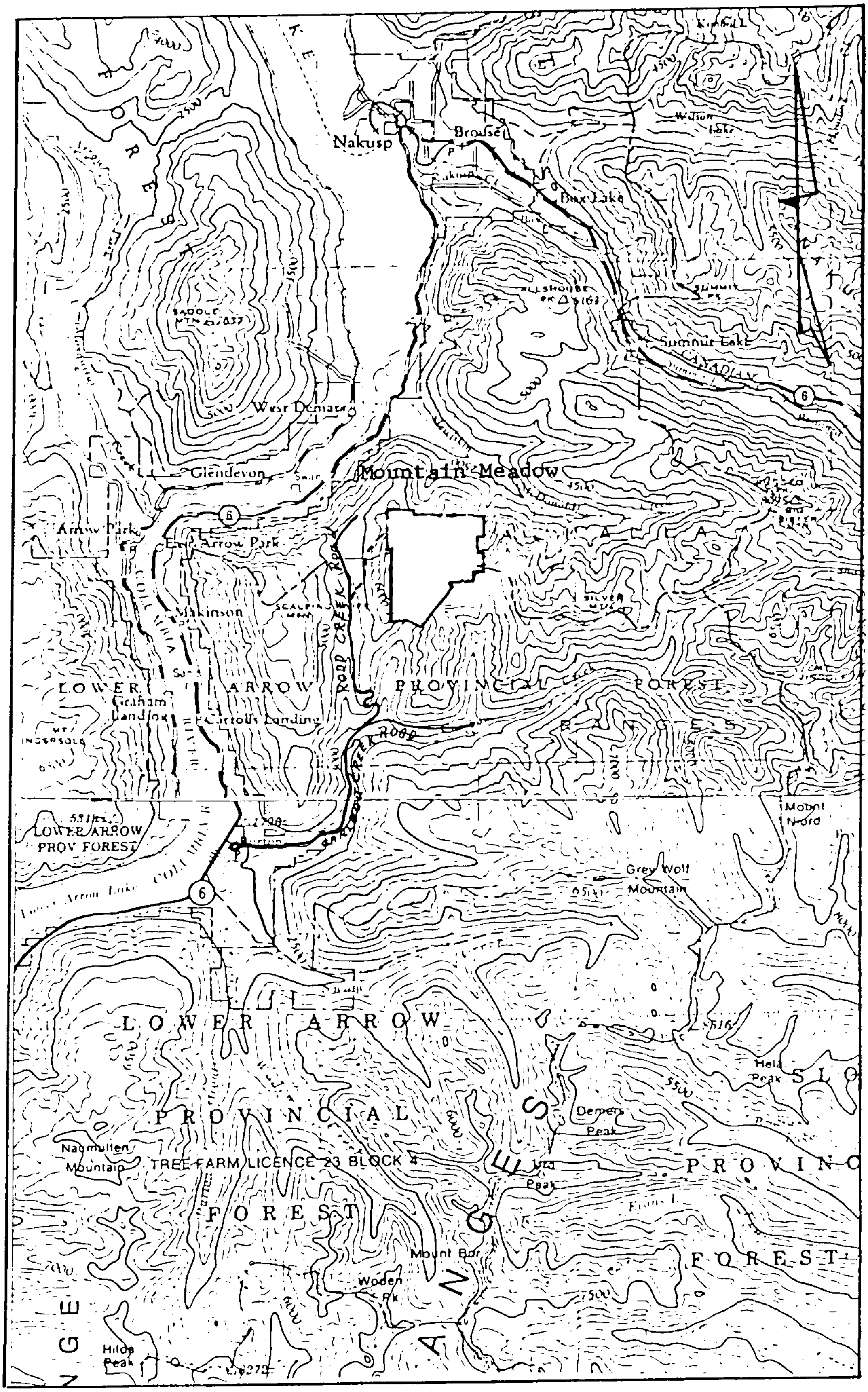
The Mountain Meadow Property is located in the Selkirk Mountains, 12.5 kilometres northeast of Burton, B.C. The claims are situated between the headwaters of Mineral and Blue Grouse Creeks on the Mountain Meadow plateau. The plateau is located between Silver and Scalping Knife Mountains.

Access to the property is via a 6 kilometre forestry access road which branches northeast from the more northerly trending Rodd Creek road. Approximately 7 kilometres northeast from Burton, the Rodd Creek road adjoins Caribou Creek road near the mouth of Mineral Creek (Figure 1).

Logging in the area has kept access roads in good condition and easily passable by two-wheel drive vehicles.

b) Topography and Vegetation

The property covers a flat mountain plateau at 6,000 feet elevation. Steep slopes surround the plateau with 50 to 100 foot cliffs to the north and northeast. Deep ravines form the headwaters of Mineral Creek to the south and tributaries of Slewskin Creek to the north. The plateau's top is covered by sub-alpine flora intermixed with stands of scrub brush. There appears to be little or no economic timber on the area. The plateau's edge and sides are heavily treed by smaller spruce, pine and cedar. At lower elevations and in ravine bottoms, tag alder and devil's club are common.



Location Map - Figure 1

0 5 10 15 20 km

c) Claim Inventory (Figure 2)

Jordan Claim Group

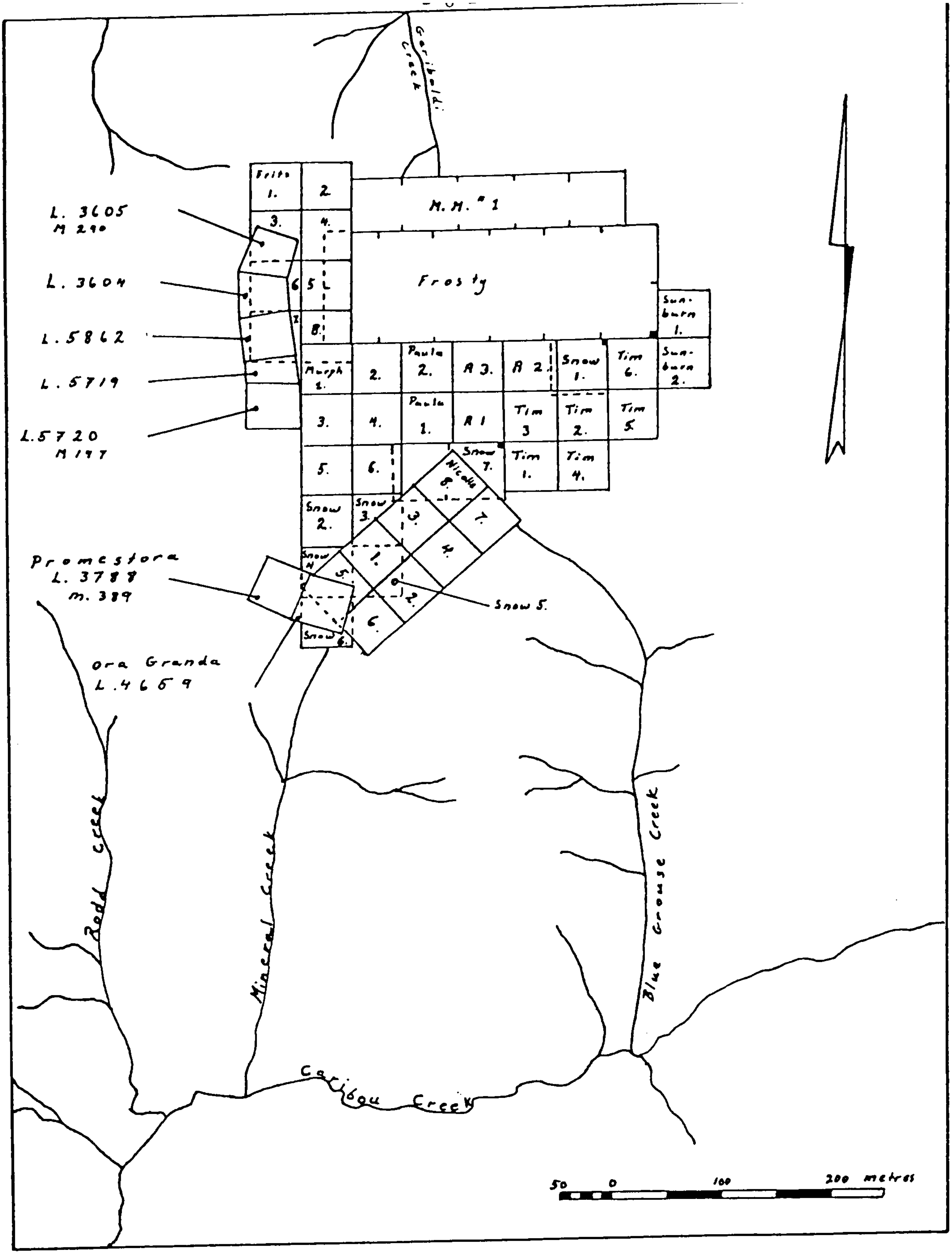
Claim Name	Record No.	Units	Record Date
Fritz No. 1	896	1	Oct. 3/78
Fritz No. 2	897	1	Oct. 3/78
Fritz No. 3	898	1	Oct. 3/78
Fritz No. 4	899	1	Oct. 3/78
Fritz No. 5	900	1	Oct. 3/78
Fritz No. 6	901	1	Oct. 3/78
Fritz No. 7	902	1	Oct. 3/78
Fritz No. 8	903	1	Oct. 3/78
Frosty	951	12	Oct. 16/78
MM # 1	1100	5	Feb. 26/79

Murphy Claim Group

Claim Name	Record No.	Units	Record Date
Tim No. 1	847	1	Sept. 6/78
Tim No. 2	848	1	Sept. 6/78
Tim No. 3	849	1	Sept. 6/78
Tim No. 4	925	1	Oct. 3/78
Tim No. 5	926	1	Oct. 3/78
Tim No. 6	927	1	Oct. 3/78
Paula No. 1	912	1	Oct. 3/78
Paula No. 2	913	1	Oct. 3/78
Murph No. 1	906	1	Oct. 3/78
Murph No. 2	907	1	Oct. 3/78
Murph No. 3	908	1	Oct. 3/78
Murph No. 4	909	1	Oct. 3/78
Murph No. 5	910	1	Oct. 3/78
Murph No. 6	911	1	Oct. 3/78
Sunburn No. 1	904	1	Oct. 3/78
Sunburn No. 2	905	1	Oct. 3/78
Nicole No. 1	917	1	Oct. 3/78
Nicole No. 2	918	1	Oct. 3/78
Nicole No. 3	919	1	Oct. 3/78
Nicole No. 4	920	1	Oct. 3/78
Nicole No. 5	921	1	Oct. 3/78
Nicole No. 6	922	1	Oct. 3/78
Nicole No. 7	923	1	Oct. 3/78
Nicole No. 8	924	1	Oct. 3/78

Claim Name	Record No.	Units	Record Date	
A 1	914	1	Oct. 30/78	
A 1	915	1	Oct. 30/78	
A 3	916	1	Oct. 30/78	
Snow 1	993	1	Nov. 17/78	
Snow 2	994	1	Nov. 17/78	
Snow 3	995	1	Nov. 17/78	
Snow 4	996	1	Nov. 17/78	
Snow 6	998	1	Nov. 17/78	
Snow 7	999	2	Nov. 17/78	
			Mineral Lease Name	No.
Promistora	L3788	1	Promistora	389
Ora Granda	L4659	1	Nov. 2/72	

All claims are located within the Slocan Mining District.



Claim Map - Figure 2

III GRID ESTABLISHMENT

A 3.1 kilometre north-south baseline was cut across the central portion of the property. To achieve greater control on the northern map area, two additional north-south baselines (one at 3 + 00S, 10 + 00N, north 550 metres and the other from 7 + 00S, 7 + 00E, north 700 metres) were cut on either side of the Garibaldi Creek ravine. The three north-south lines were connected by a 1,700 metre east-west baseline.

East-west location lines were established at 200 metre intervals across the property. On the eastern and north-western portions of the map area, line intervals were decreased to 100 metres. All lines were well flagged, surveyed using compass, topofil and marked at 50 metre stations for geochemical, geological and geophysical surveys.

The steepness of the Garibaldi Creek ravine caused line cutting crews to traverse down slope into the ravine and be transported out by helicopter. Thick vegetation on the valley floor necessitated the cutting of helipads.

IV REGIONAL GEOLOGY

The regional geology of the area has been described in detail by D.W. Hyndman in Geological Survey of Canada Bulletin 161 (1968). He suggests that the area is predominantly underlain by metasediments and volcanics of the Slocan Group (Lower Jurassic). Intense regional metamorphism, ranging in grade from chlorite to sillimanite, has imparted a strong, gently plunging, east-west mafic lineation and schistosity to the rocks of this group.

The sediments and volcanics are sharply intruded by granitic plutons of Jurassic age (Ruby Range Stock and Mountain Meadow Pluton). Plutonic bodies range from 256 to 5,120 hectares (1 to 20 square miles) in size and appear slightly elongated along an east-west direction.

V PROPERTY GEOLOGY

a) Introduction

The Mountain Meadow plateau is bounded by andesite and dacite flows to the north and argillite, shale and siltstone units to the south. Much of the central plateau is underlain by quartz diorite, diorite, quartz monzonite, monzonite and syenodiorite rocks of the Ruby Range Stock. The Mountain Meadow Pluton ranges from hornblende diorite to quartz diorite in composition and intrudes andesite and dacite flows on the northern map area.

Slocan Group

b) Andesite

Andesite mapped on the northern portion of the property is microcrystalline to aplitic in texture and appears gray to black in color. Contacts with the quartz diorite porphyry are sharp and frequently concordant with the andesite's foliation. Weak flow banding and occasional potassium feldspar phenocrysts (2 to 4 millimetres) occur locally.

c) Argillite

The southern portion of the claim group covers a large body of fine grained argillite. This unit is gray to green in color and partially silicified. Bedding planes are distinct, following a 100^{o} strike and northerly (40^{o}) dip. The argillite unit forms an abrupt easterly contact with the quartz diorite.

Mountain Meadow Pluton

d) Diorite Porphyry

Outcrops of light gray diorite porphyry on the northern portion of the map area, host (.5 to 3 centimetre) euhedral phenocrysts of potassium feldspar in a medium grained equigranular matrix. Phenocrysts frequently contain small biotite inclusions arranged in zones parallel to the crystal boundaries. Composition is approximately:

60% potassium feldspar
30% biotite
5% quartz
5% chlorite

Minor amounts of fine grained pyrite are disseminated throughout. The diorite porphyry is fractured along a steeply dipping 160^{o} strike. Fracture density increases along eastern and western margins and hosts several weakly mineralized quartz veins.

Ruby Range Stock

e) Quartz Diorite

A large body of medium grained equigranular quartz diorite was mapped on the central portion of the property. Outcrops are massive, glaciated, and gray in color. Composition consists of approximately:

10% quartz
50% plagioclase
35% hornblende
5% chlorite

Biotite is a minor mafic constituent, but increases in concentration near andesite and argillite contacts. Along these contacts, 5 to 15 centimetre andesite and argillite inclusions occur.

Fracturing follows a 160^{o} strike, increases along eastern and western batholith margins and frequently hosts quartz veins and aplite dykes. Some of the quartz veins host either molybdenite-- pyrite or galena - pyrite mineral assemblages.

Centrally located within the stock is a small occurrence of sericite arsenopyrite which hosts gold values.

f) <u>Structure</u>

The overall geology shows metasediments and volcanic units of the Slocan Group, sharply intruded by quartz diorite and diorite porphyry plutons (Ruby Range Stock and Mountain Meadow Pluton). Bedding schistosity and most geological contacts follow a general east-west structural trend.

The predominant direction of fracturing and subsequent veining within the intrusives is north to northeast and may have resulted from contraction or faulting of the batholith. Increased fracturing along eastern and western intrusive margins appear to be contact related. Areas within which the fracture densities are more numerous tend to host a greater number of mineralized quartz veins. The area bounded by 14 + 00S, 5 + 00S, 10 + 00E and 12 + 00E shows the highest frequency of quartz, quartz-molybdenite veining found to date. Just east of this area is a steep ravine (Grouse Creek), along which the intrusive comes in contact with argillite metasediments. This area may also have had minor faulting which would parallel the veining structures.

Generally, it has been noted that the mineralized veining occurs within the intrusive along their eastern and western contacts. Mineral occurrences tend to parallel the direction of the contact. The only exception to this is the sericite-arsenopyrite vein which is located within the middle of the intrusive. The direction of this vein appears to strike northeast, but because of very limited exposure this is very uncertain.

VI MINERALIZATION

a) Introduction

Galena, molybdenite and gold mineralization on the property is generally low grade and vein related.

Veining has been classified as follows:

Quartz, pyrite, molybdenite veining
Quartz, pyrite, galena veining
Sericite, arsenopyrite veining

b) Quartz-Molybdenite Veining

A series of parallel quartz veins (1 to 30 centimetres in width) generally striking at 160°, cut the quartz diorite on the eastern portion of the property. Veining is widely spaced and poorly exposed over a 600 metre distance. The largest outcrop occurs along line 7 + 00S, between 10 and 12 + 00E. Veins which are mineralized, host large (3 to 10 millimetre) molybdenite rosettes and fine grained pyrite clusters. Quartz veins in diorite porphyry outcrops at 5 + 00N, 9 + 00W range from 1 to 5 centimetres in width and contain similar pyrite-molybdenite mineralization.

c) Quartz-Galena Veining

The quartz diorite on the east side of Mineral Creek hosts several easterly dipping (1 to 6 centimetre) quartz veins, striking 160°. Mineralization occurs as small galena and pyrite lenses within vuggy quartz. One quartz vein, within this sequence, ranged from 15 cm to 90 cm in width and hosted large, massive galena lenses, which occur randomly along its strike.

d) Sericite-Arsenopyrite Veining

Trenching of the quartz diorite at 16 + 25S, 6 + 00E has exposed a 50 to 75 centimetre sericite-arsenopyrite vein. Vein contacts are sharp, vertical and appear to follow a 60° strike. Weathered surfaces are deep red to dark brown, strongly limonite stained and vuggy in appearance (Figure 3). Fresher surfaces have a pale green matrix. The vein consists of euhedral to subhedral arsenopyrite phenocrysts within a matrix composed of radiating sericite blades. Although this occurrence is described as a vein, it is difficult to determine at this time whether it is truly a vein. A series of channel samples taken at 90 centimetre intervals gave an average assay of 7 ppm Cu, 26 g/mt Ag and 30 g/mt Au.

A second trench, a few metres north of the first, hosts a 10 centimetre sericite vein and 10 to 20 centimetre quartz vein. Veins strike 20° and appear to dip vertical. The sericite vein hosts arsenopyrite and assayed as follows: 27 ppm Cu, 3 ppm Mo, 4 g/mt Ag and 3 g/mt Au. The quartz vein assayed 20 g/mt Ag and 5 g/mt Au.

e) Discussion of Results

The similar strike of quartz galena and quartz molybdenite veining, suggests that minerals were precipitated from either a single hydrothermal phase in slightly different lithologies or from different hydrothermal pulses during two mineralizing events.

Sericite-arsenopyrite veins appear unrelated to the above mineralizing episodes.

Photograph of Sericite Vein

Figure 3

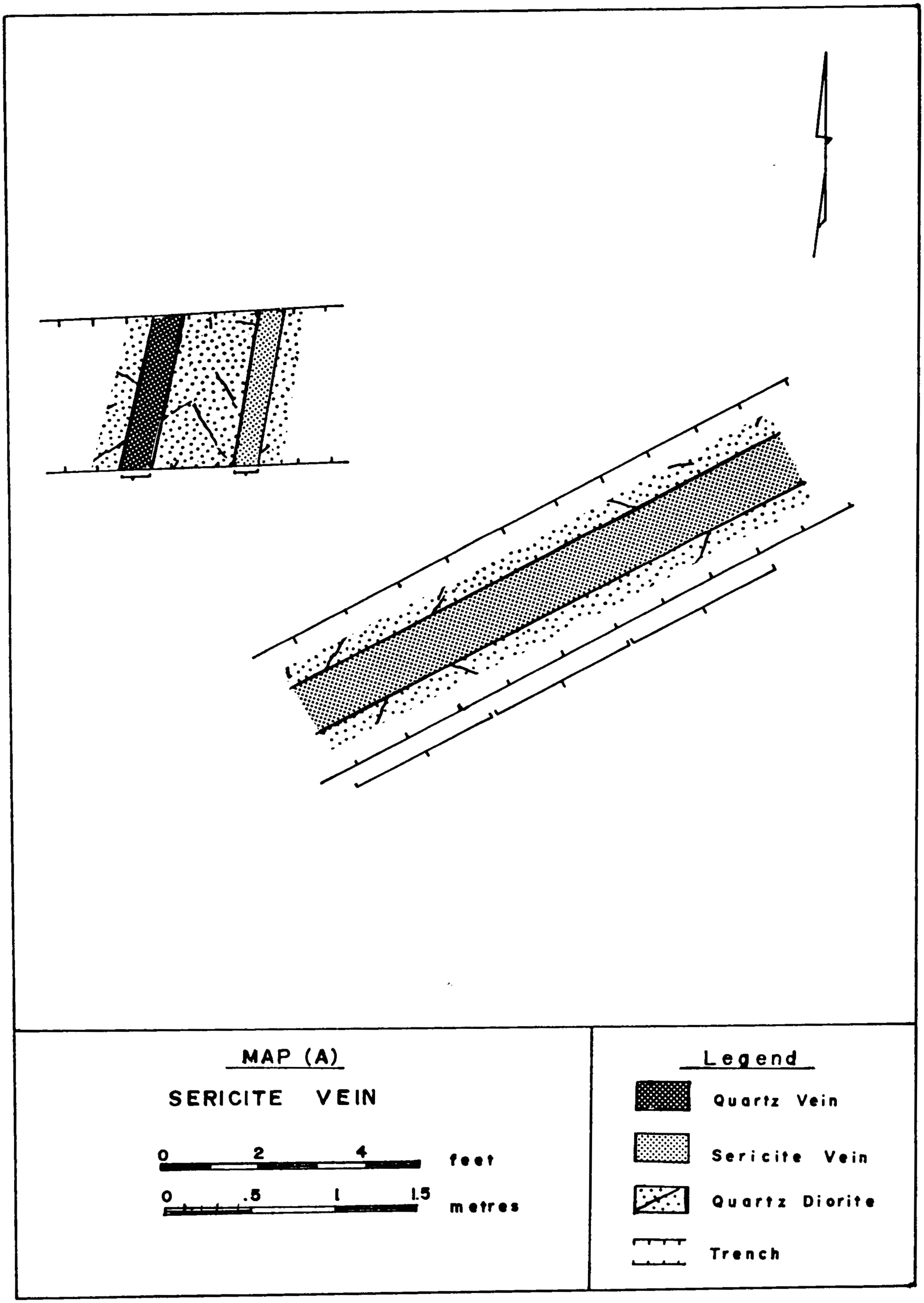

MAP (A)
SERICITE VEIN
0 2 4 feet
0 .5 1 1.5 metres
Legend
Quartz Vein
Sericite Vein
Quartz Diorite
Trench

Figure 4

VII GEOCHEMICAL SURVEY

a) Introduction

Soil samples were taken from the "B(f)" horizon, at 50 metre intervals over the entire grid. Silt samples were collected wherever grid lines intersected streams. A total of 960 samples were collected and analysed at the Brenda Mine Assay Lab for Cu, Mo, Pb and Zn in ppm.

Treatment of Results

1. Statistical Analysis

Statistical presentation of the various sample types were made so as to better compare bulk characteristics of the geochemical data. The two statistical formats used in this report are cumulative frequency distribution and histogram frequency. The histogram is the more obvious of the two, enabling the reader to make quantitative observations regarding data grouping made etc., while the cumulative frequency plot may be used to graphically derive qualitative information such as standard deviations, background values, low anomalous values and threshold values.

The following is not meant to be a definitive treatment of the statistical analysis of geochem data, but rather a guide to the more important statistical parameters considered in this report.

2. Distribution

In beginning the treatment of a large body of geochemical data, it is necessary to determine the distribution which best fits the data. It has been determined (by concentration vs. frequency plots) that most geochemical data follows a lognormal distribution often referred to as the bell-shaped curve. Natural geochemical values often tend to form negatively skewed distribution curves when plotted. This results from the fact that it is more common to have low values in geochemical data, than high values. If, instead of the actual value itself, it's logarithm is plotted in the abscissa. the frequency curve takes a symmetrical, bell-shaped form, typical of the normal distribution. Plotting the actual geochemical values on a logarithmic graph will achieve the same results. This is the procedure used for the data considered.

3. Histogram

The histogram used in preparing this report is a plot of the interval frequency vs. interval (see Figure). Several important statistical parameters may be determined such as the total range of data in sample, modes, and the range with the highest frequency of values. Finally, the general form of the density distribution of the data can be determined quickly.

4. Cumulative Frequency

Cumulative frequency paper is generally constructed with a probability scale as the ordinate and a logarithmic scale as the abscissa (Figure). By replacing the arithmetic ordinate scale of the histogram with a probability scale, the cumulative frequency curve is represented by a straight line or a line of "best fit". This line joins points calculated from frequencies, cumulated from the highest to the lowest values; thus the 100% will correspond to the lowest class and can be eliminated.

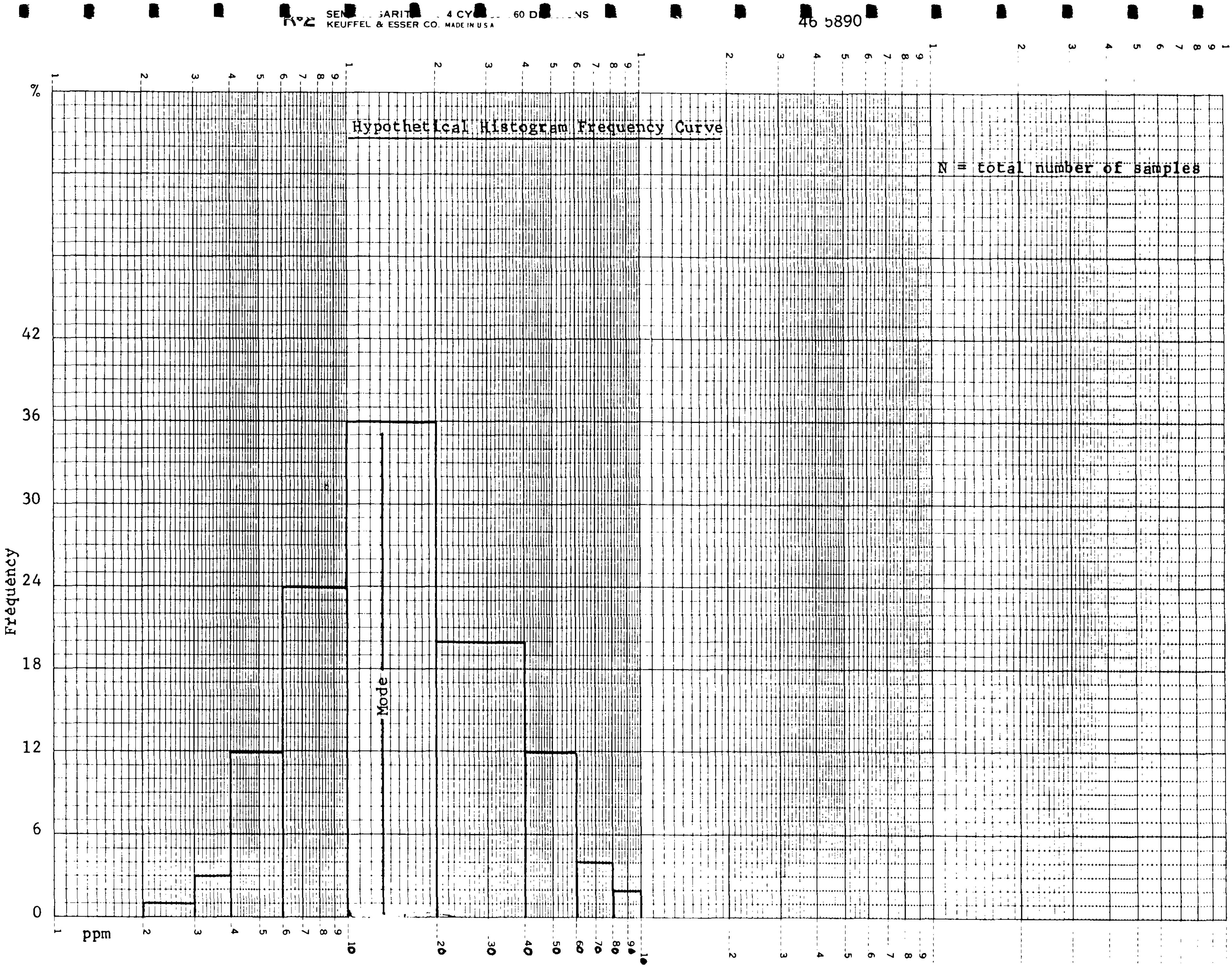
There are essentially three parameters defining the geochemical population, which may be obtained graphically, using the cumulative probability plots. These are:

1) Geometric mean or background value (b) located by the intersection of the cumulative frequency curve at the population mean (50%). Trace intersection down to ppm scale.

2) Low anomalous value (l) located by the intersection of the cumulative frequency curve at the 16%. Trace intersection down to ppm scale. The 16% line expresses the scatter of the values around the population mean, incorporating the addition of one standard deviation (s) to the mean.

3) Anomalous or threshold value (t) located by the intersection of the cumulative frequency curve at the 2.5%. Trace intersection down to ppm scale. The threshold value is a fairly complex geochemical parameter and is supposed to be the upper limit of the background fluctuation (b). This incorporates the addition of two standard deviations (2s) to the mean.

Geochemical results for each element have been plotted on accompanying maps and contoured to correspond with element distributions.


Hypothetical Histogram Frequency Curve
N = total number of samples
%
42
36
30
24
18
12
6
0
Frequency
Mode
ppm
10
20
30
40
50
60
70
80
90
KEUFFEL & ESSER CO. MADE IN U.S.A.
46 5890

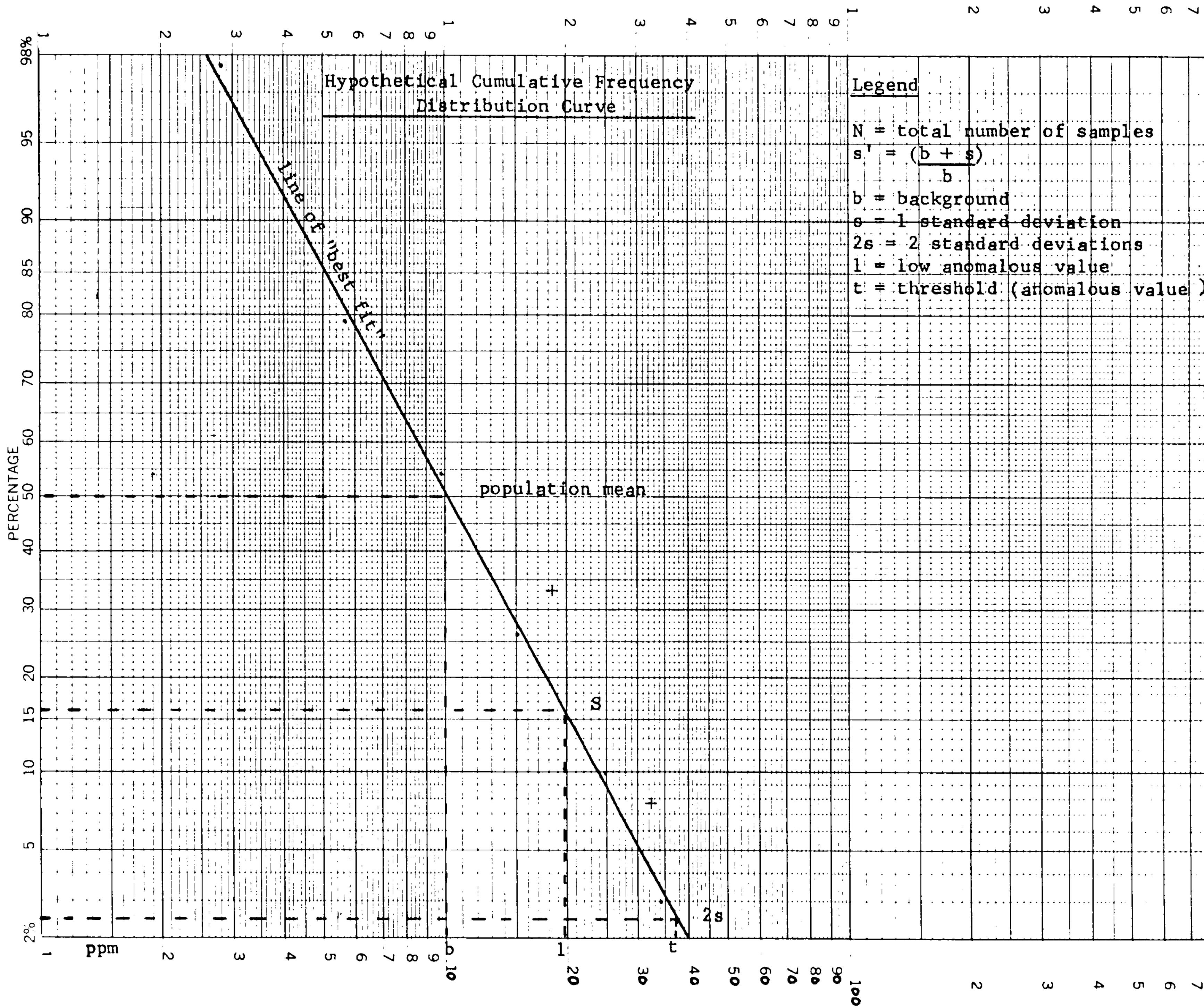

Hypothetical Cumulative Frequency
Distribution Curve
Legend
N = total number of samples
s' = (b + s) / b
b = background
s = 1 standard deviation
2s = 2 standard deviations
l = low anomalous value
t = threshold (anomalous value)
line of "best fit"
population mean
S
2s
PERCENTAGE
ppm
b
l
t

Fig. 7

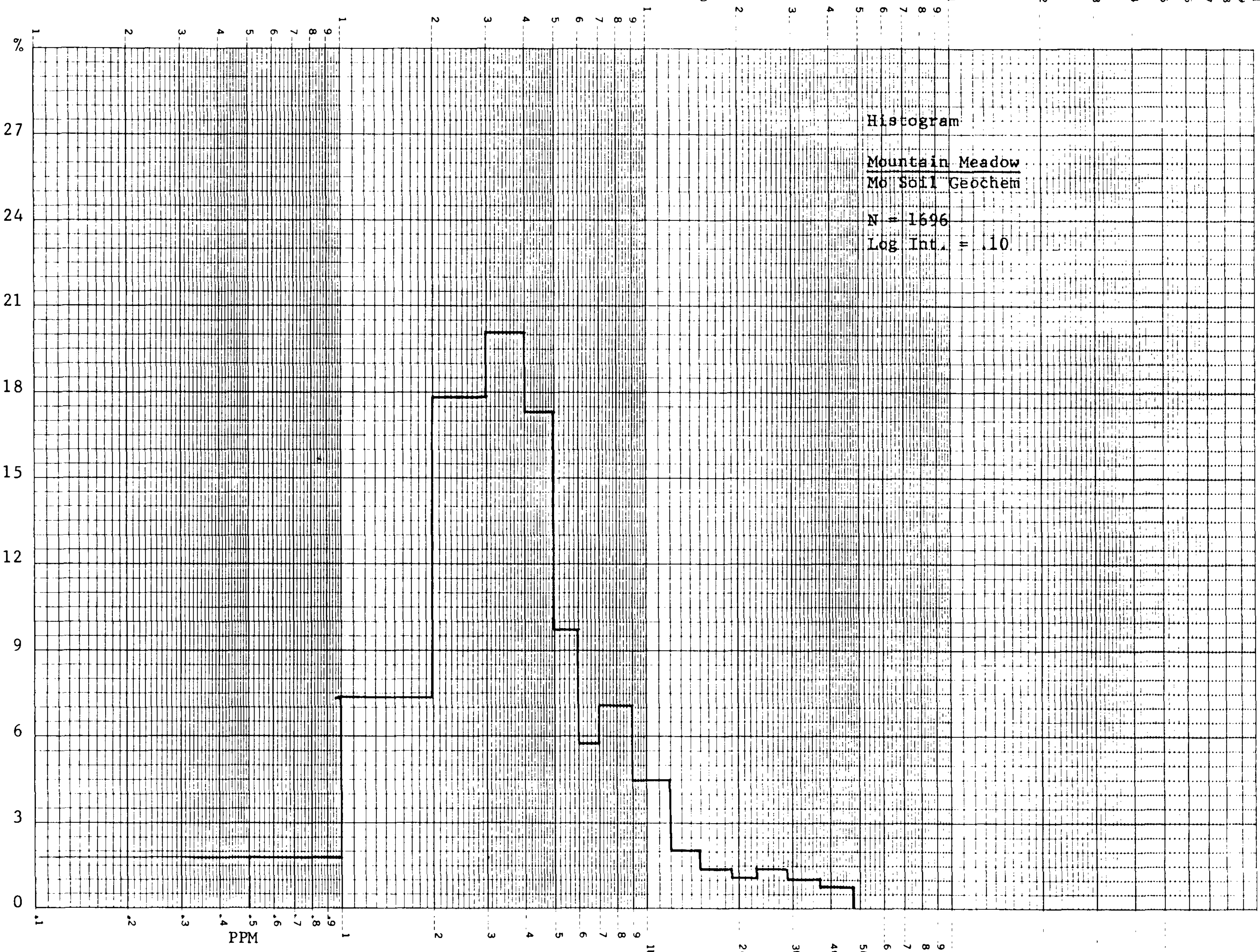

Histogram
Mountain Meadow
Mo Soil Geochem
N = 1696
Log Int. = .10
%
27
24
21
18
15
12
9
6
3
0
.1
.2
.3
.4
.5
.6
.7
.8
.9
1
2
3
4
5
6
7
8
9
10
20
30
40
50
PPM

Fig. 8

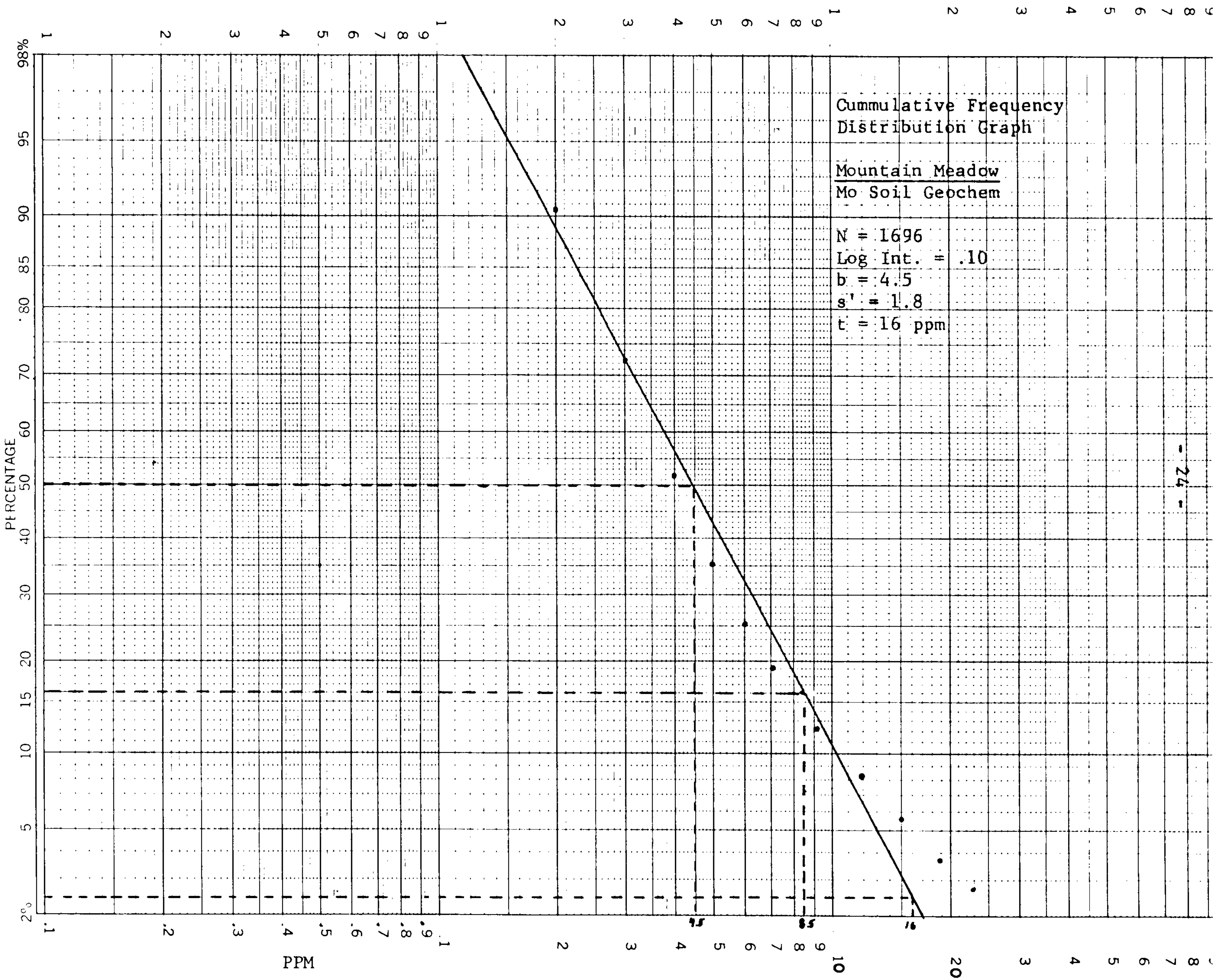

Cummulative Frequency
Distribution Graph
Mountain Meadow
Mo Soil Geochem
N = 1696
Log Int. = .10
b = 4.5
s' = 1.8
t = 16 ppm
PERCENTAGE
PPM

Fig. 9

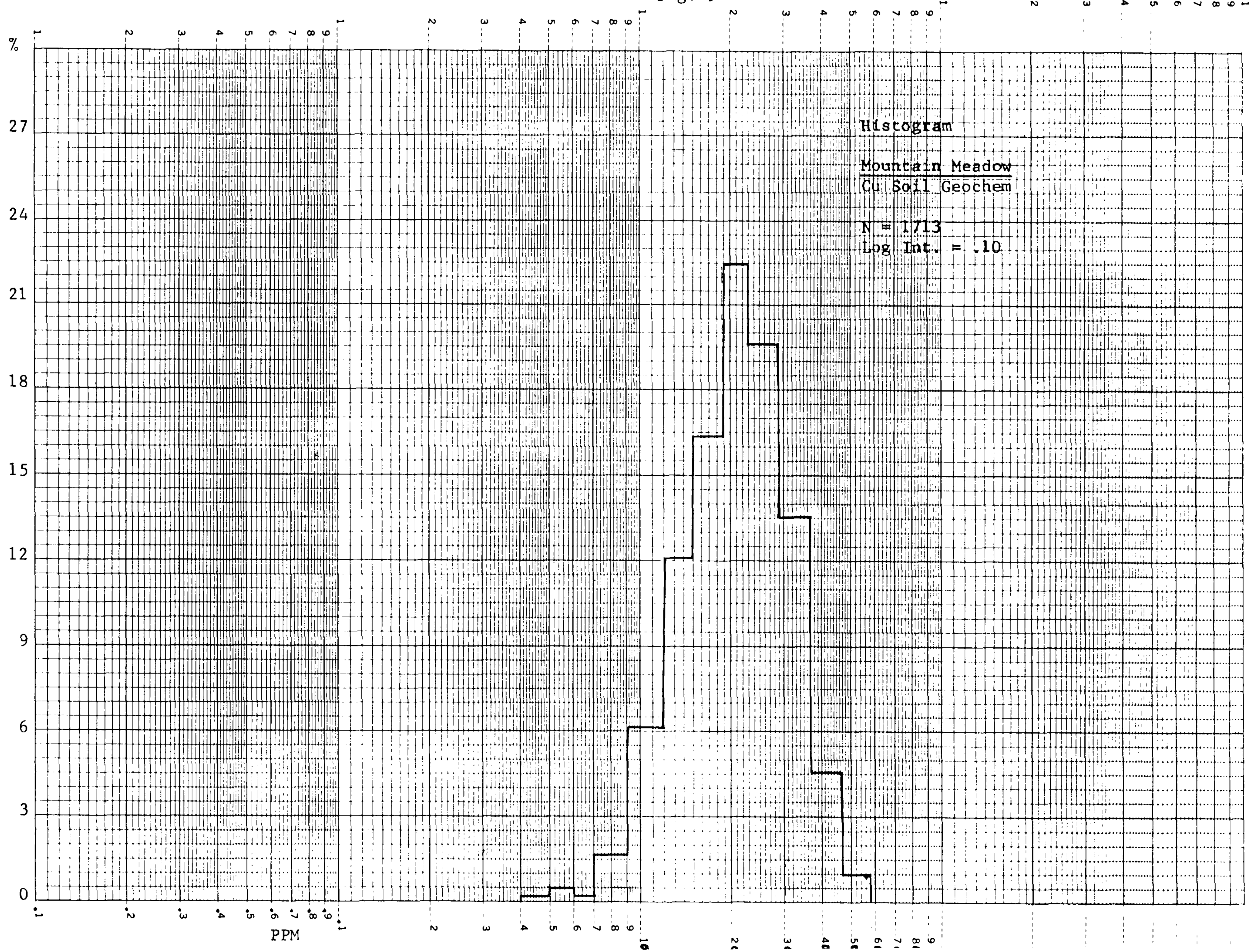

Histogram
Mountain Meadow
Cu Soil Geochem
N = 1713
Log Int. = .10
%
27
24
21
18
15
12
9
6
3
0
PPM

Fig. 10

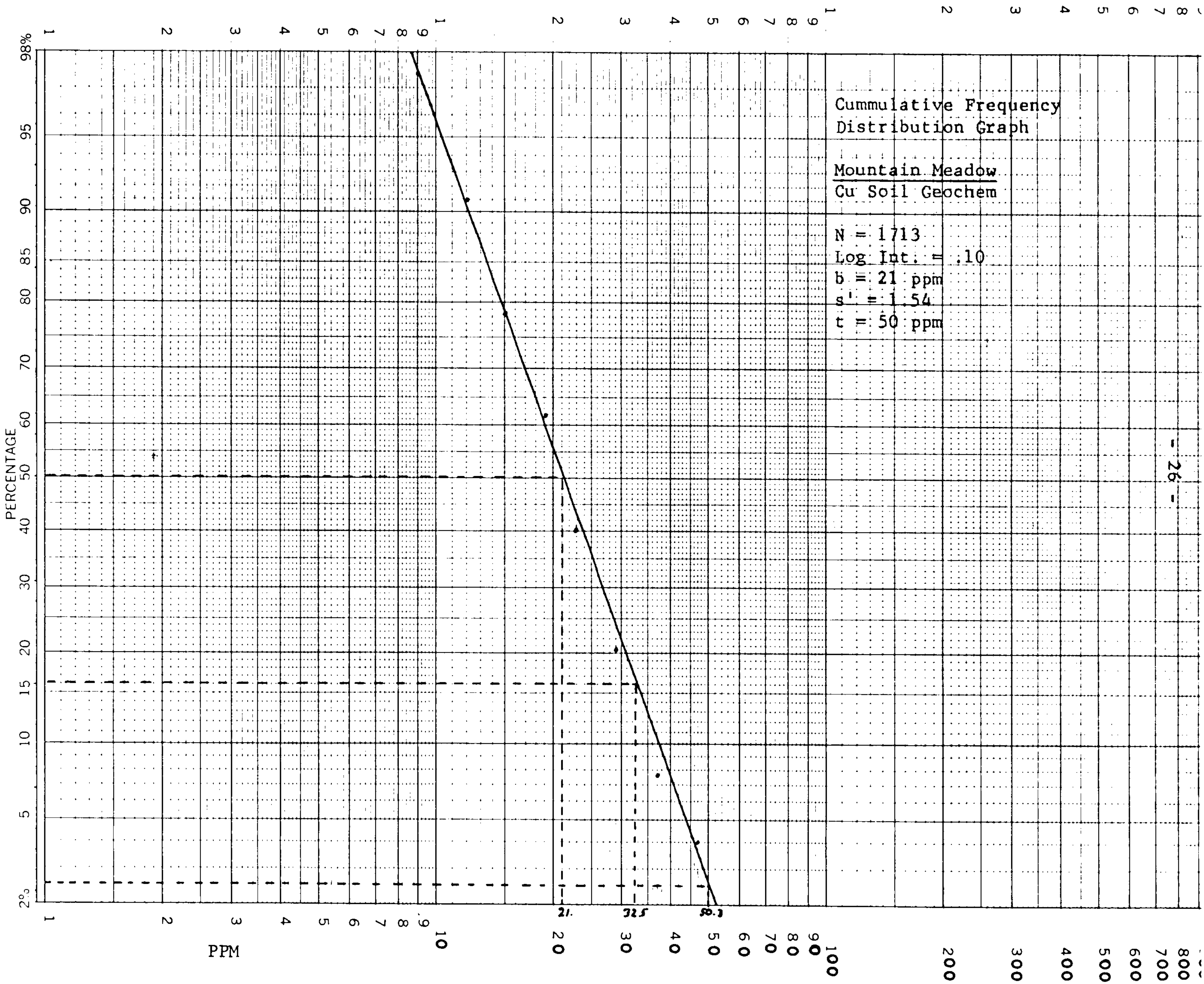

Cummulative Frequency Distribution Graph
Mountain Meadow
Cu Soil Geochem
N = 1713
Log Int. = .10
b = 21 ppm
s' = 1.54
t = 50 ppm
PERCENTAGE
PPM
21.
32.5
50.3

Fig. 11

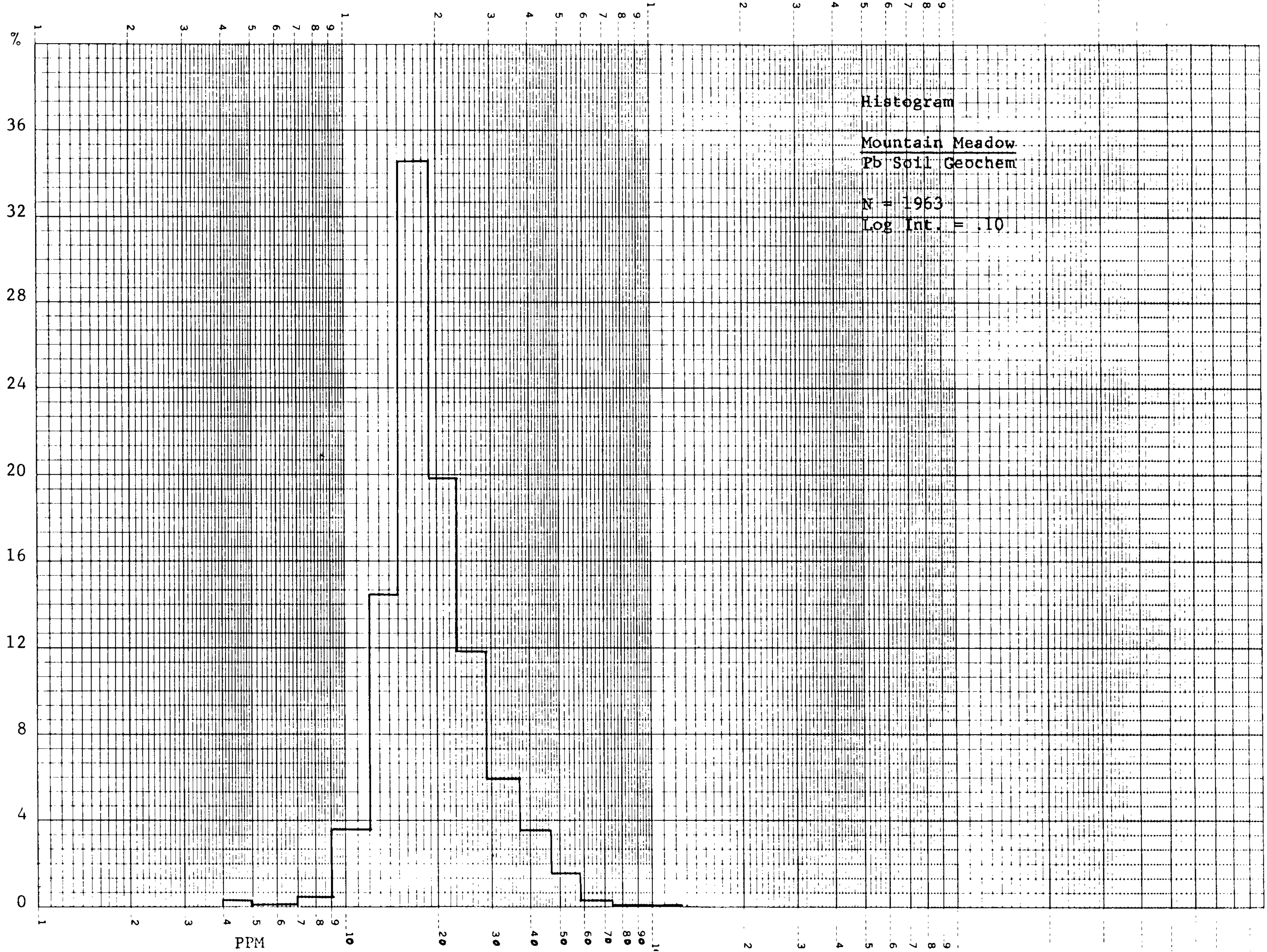

Histogram
Mountain Meadow
Pb Soil Geochem
N = 1963
Log Int. = .10
%
36
32
28
24
20
16
12
8
4
0
PPM
10
20
30
40
50
60
70
80
90

Fig. 12

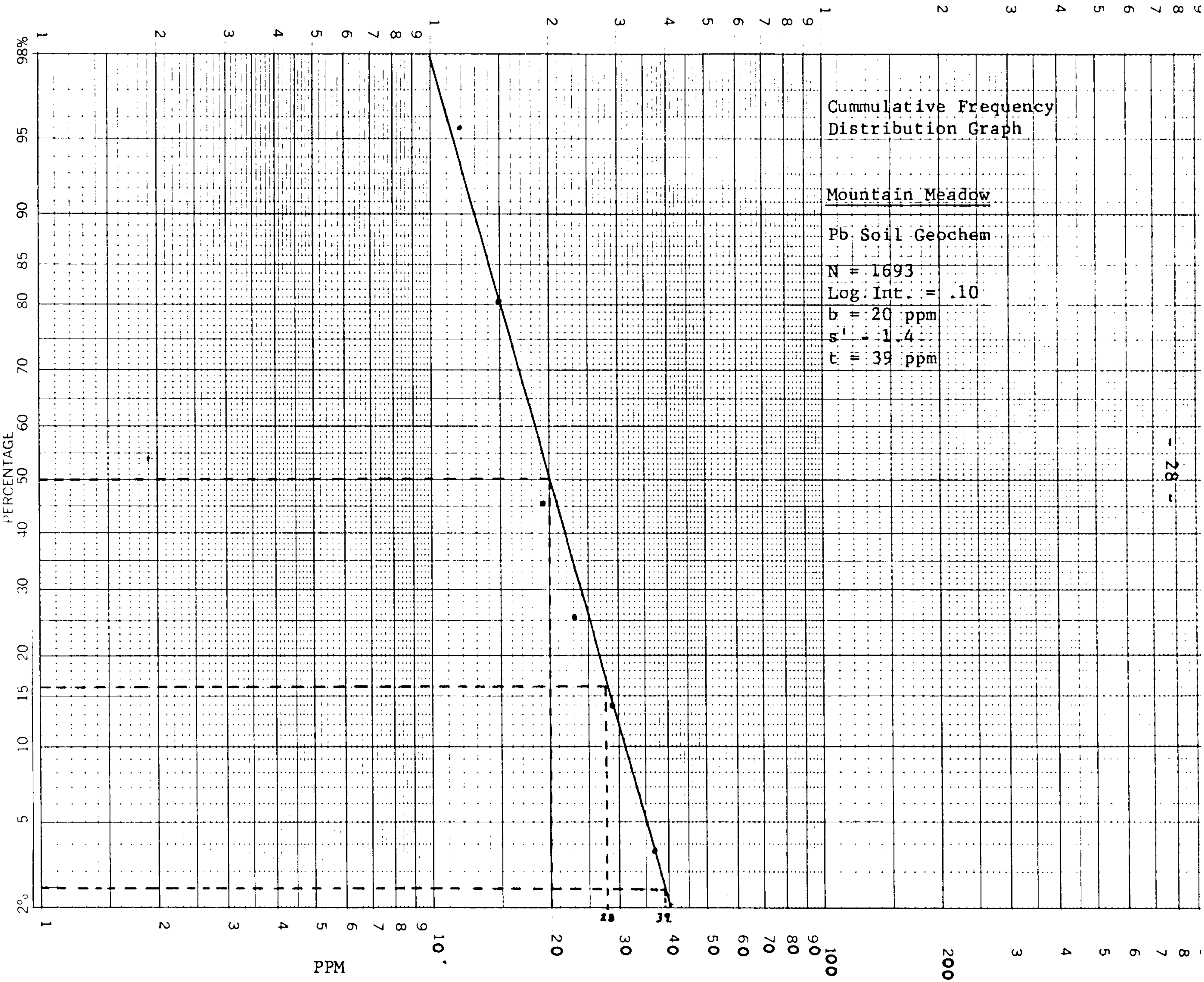
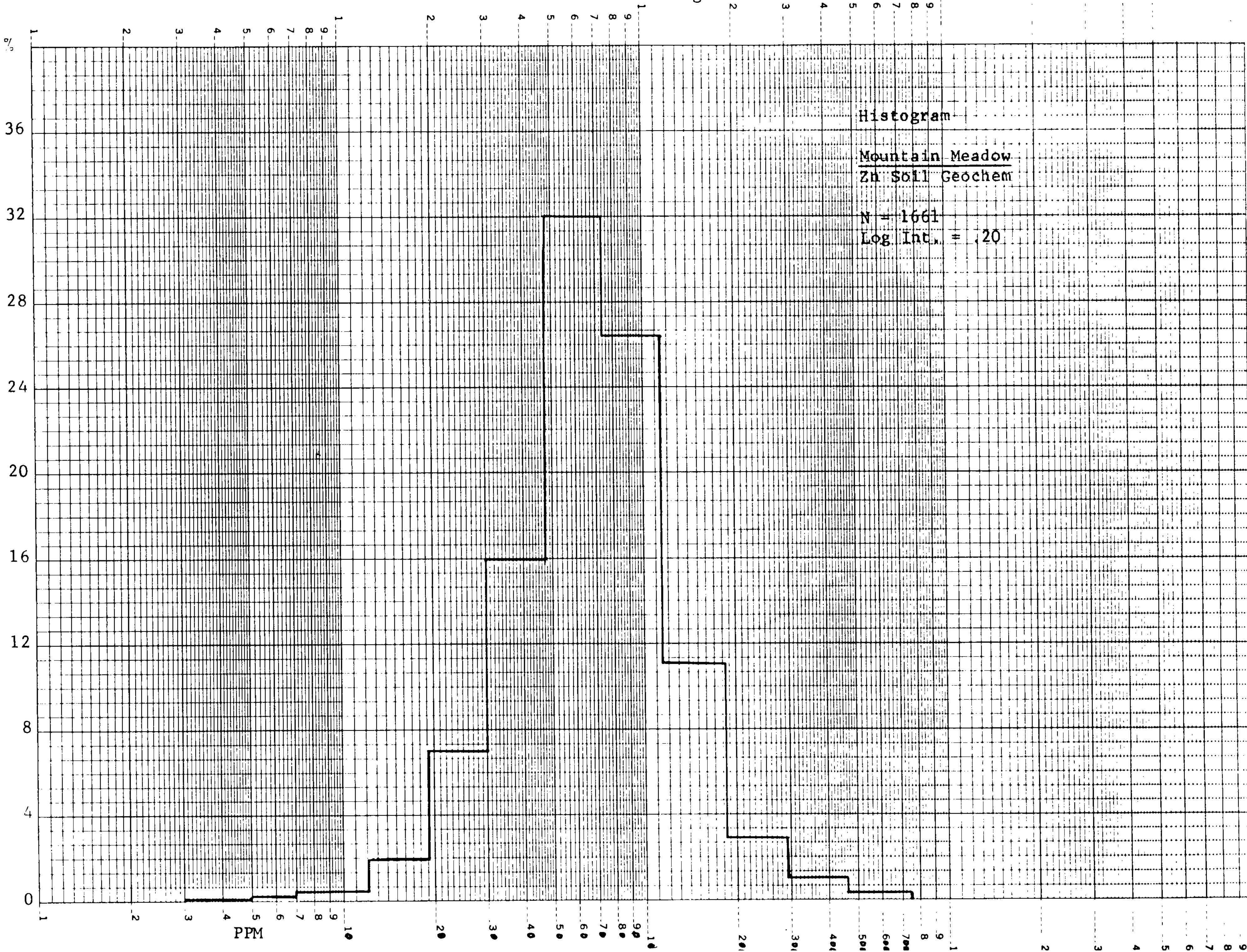

Cummulative Frequency
Distribution Graph
Mountain Meadow
Pb Soil Geochem
N = 1693
Log Int. = .10
b = 20 ppm
s' = 1.4
t = 39 ppm
PERCENTAGE
PPM
28
39

Fig. 13


Histogram
Mountain Meadow
Zn Soil Geochem
N = 1661
Log Int. = .20
%
36
32
28
24
20
16
12
8
4
0
PPM
10
20
30
40
50
60
70
80
90
100
200
300
400
500
600
700

K+E PROBABILITY x 3 LOG CYCLES KEUFFEL & ESSER CO. MADE IN U.S.A. 46 8080

Fig. 14

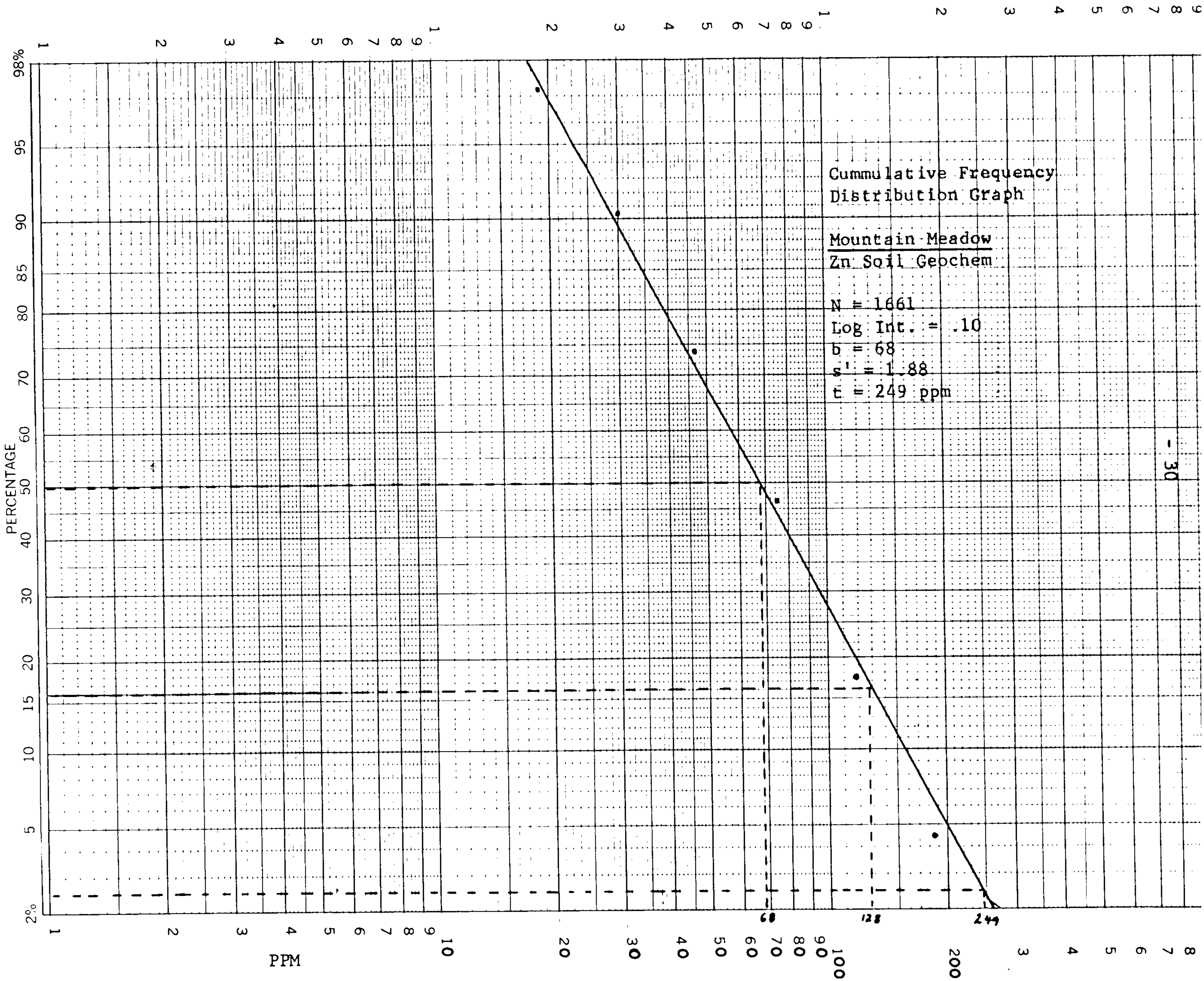


Figure 15

Soil Geochem Parameters

Element	Background Value	Low Anomalous	Anomalous Threshold	High Anomalous
Mo	5 ppm	9 ppm	16 ppm	24 ppm
Cu	21 ppm	33 ppm	50 ppm	68 ppm
Pb	20 ppm	28 ppm	39 ppm	50 ppm
Zn	68 ppm	128 ppm	249 ppm	370 ppm

Rounded values from calculations

d) Discussion of Results

The geochemical survey has identified three main anomalous zones.

As with most soil surveys, there exists some isolated anomalous values which are not supported by surrounding samples. These values have been plotted and contoured, but are considered as erratics.

Zone 1

A large north-south Mo, Cu anomaly on the western plateau edge corresponds well with known Mo showings between 14 + 00S, 4 + 00S, 10 + 00E and 12 + 00E.

The Mo anomaly appears uniform and continuous along the zone's length and ranges in value from 8 to 50 ppm. A corresponding Cu anomaly occurs over a slightly wider zone, is far more sporadic and ranges from 30 to 70 ppm.

Higher geochem values are usually restricted to the plateau's top with lower anomalous values on lower slopes. Narrow sub-anomalous zones frequently correspond to cliffs and rock bluffs. Strong Cu-Mo soil values on lines 6 + 00S, 7 + 00S and 8 + 00S suggest a northern extension of the mineralized zone.

Zone 2

A large Cu, Zn anomaly covers much of the southeastern grid between 28 + 00S, 34 + 00S, 00W and 10 + 00W. It is centered around the north-south argillite quartz diorite contact, on the east slope of Mineral Creek. The anomaly is uniform in shape and ranges from 30 to 153 ppm Cu and 125 to 548 ppm Zn. Along its eastern margin, several narrow Pb anomalies parallel a series of galena-quartz veins. High Cu, Zn geochem values on 00W suggest that Zone 1 extends east of the grid.

Zone 3

On the steep eastern slope of the Garibaldi Creek ravine, several small Pb, Zn and Mo anomalies occur. Geological mapping suggests that most fall within contact zones and do not coincide with known mineral occurrences.

VIII CONCLUSIONS

Mineral occurrences on the Mountain Meadow property are vein related and largely restricted to the instrusive bodies.

Quartz veins follow a common strike and often host either molybdenite or galena mineralization. Known mineral occurrences correspond well with geochemical anomalies.

The soil survey has identified several zones of possible Cu, Zn mineralization along the intrusive contacts. Geological mapping, however, did not identify any mineralization within those zones.

Of all target areas, Zone A and the sericite-arsenopyrite vein appear to have the most economic potential. Further work on these zones is required to more accurately determine their size and grade.

Other zones of interest are:

1. Quartz molybdenite showings along Garibaldi Creek.

2. The contact related geochemical anomalies along the property's northern and southern margins.

IX RECOMMENDATIONS

The following programs are proposed for the Mountain Meadow property:

1) Geochemical Survey:

   Extension of soil geochemical surveys in areas where the anomalies appear to continue beyond the present grid.

2) Geological Mapping:

   The geology of areas outlined by soil anomalies require a more detailed geologic investigation.

3) Trenching:

   In the area of several of the mineral occurences located, rock exposure is extremely poor and this may necessitate removal of overburden. Because of the environmental sensitivity of this sub-alpine region, trenching using a backhoe is recommended.

4) As an alternative to trenching, a series of small diamond drill holes using an x-ray type drill may be attempted.

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APPENDIX I

PREPARATION of SOILS and SILTS for GEOCHEMICAL ANALYSIS

1. Empty soil sample into the pan and then place the sample packet into the pan with the sample.
2. Place the pan containing the sample into the oven (Temp=105 C) and leave until dry approx. 2 hours.
3. Remove from the oven when dry and remove rocks and twigs etc.
4. Break up the clay lumps with a rubber bung and then transfer the sample to an 80 mesh screen.
5. Screen approx. 50 - 100 grams of sample through the screen and transfer to the original packet and seal.
6. Discard the +80 mesh fraction of the sample.

ANALYSIS by A.A. for Cu, Pb, Zn, Ag and Mo.

1. Weigh 2.00 GM on the top pan balance into a 150 ML beaker (check that beaker No. is the same as written on work sheets)
2. Add 15 MLS Nitric Acid, cover with watchglass and heat on low heat until brown Nitrous fumes are gone.
3. Remove beakers from hot plate, cool for 5 minutes.
4. Add 10 ML Hydrochloric Acid. Place on hot plate. When all brown Nitrous fumes are gone, remove watchglasses and take just to dryness on a low plate.
5. Remove from plate, cool, add 20 MLS distilled water, 5 MLS Conc. Hydrochloric Acid and boil salts into solution.
6. Cool in water bath, when cold transfer to 100 MLS Volumetric flask, add 1 MLS Superfloc solution and dilute to 100 MLS with distilled water.
7. Mix thoroughly and then transfer to original beaker.
8. When all samples ready, transfer to A.A. room for reading.
9. If Mo is required, 10.00 MLS of this solution is transfered to a test tube and 1.00 MLS of ALC_3 solution added.

APPENDIX II

STATEMENT of QUALIFICATIONS

I, Paul Bankes, of the town of Peachland, Province of British Columbia, do hereby certify that:

1) I am a geologist residing in Peachland with Post Office Box 9 as my address.

2) I am a graduate of the University of Western Ontario, with a BSc in geology (1978).

3) I have been employed as an exploration geologist by Brenda Mines Ltd. since April 1978.

P.C. Bankes, BSc
Exploration Geologist
Brenda Mines Ltd.

Date

STATEMENT of QUALIFICATIONS

I, Arnold R. Pollmer of Peachland, Province of British Columbia, do certify that:

1) I have been employed as a geologist by Noranda Mines Limited from December 1973 to June 1977; I am presently employed as the chief geologist by Brenda Mines Ltd.

2) I am a graduate of the University of Wisconsin with a Bachelor of Science Degree in Geology (1972).

3) I am a member of the Canadian Institute of Mining and Metallurgy.

4) I am a fellow of the Geological Association of Canada.

GEOLOGICAL ASSOCIATION OF CANADA FELLOW A. R. POLLMER

Arnold R. Pollmer
Chief Geologist
Brenda Mines Ltd.

APPENDIX III

PERSONNEL and TIME ALLOTMENT

Work was performed on the property between July 14 and October 30, 1979.

Crew members were:

		Man Days
Paul C. Bankes -	Exploration Geologist	17
Dell W. Ferguson -	Exploration Geologist	17
Ralph Allen -	Field Assistant	21
Tim Henneberry -	Student	17
Tim Charman -	Student	17
Norm Bussolaro -	Student	17
Graham Davidson -	Student	17
Herb MCAleenan -	Student	17

APPENDIX IV

Statement of Costs for the Jordan Claim Group

1) Geochem Survey

July 14 - 31, 1979; seventeen days; 480 samples; $36.14/man day for 26 man days	939.63

2) Geology

July 14 - 31, 1979; seventeen days; 24 line kilometres at $39.48/day	671.17

3) Food and other Camp Expenses

July 14 - 31, 1979; seventeen days; $12.14/man day for 42 man days	510.00

4) Transportation

a) Truck Rental July 14 - 31, 1979; seventeen days; $14.25/day	242.25
b) Fuel Costs July 14 - 31, 1979; seventeen days; $14.25/day	242.25

5) Assay Costs

480 samples analysed for Cu, Mo, Pb, Zn; $6.19/sample	2,972.44

6) Report Preparation

a) Writing and Drafting Feb. 6 - 21, 1980; 11 days @ $80.00/day	880.00
b) Typing February 19, 1980; one day @ $50.00/day	50.00
c) Supplies Feb. 6 - 17, 1980	45.00
Total	$6,552.74

Statement of Costs for the Murphy Claim Group

1)	Geochem Survey		
	July 14 - 31, 1979; seventeen days; 480 samples; $36.14/man day for 26 man days		939.63
2)	Geology		
	July 14 - 31, 1979; seventeen days; 24 line kilometres at $39.48/day		671.17
3)	Food and other Field Camp Expenses		
	July 14 - 31, 1979; seventeen days; $12.14/man day for 42 man days		510.00
4)	Transportation		
	a)	Truck Rental July 14 - 31, 1979; seventeen days; $14.25/day	242.25
	b)	Fuel Costs July 14 - 31, 1979; seventeen days; two trucks @ $14.25/day	484.50
	c)	Assay Costs 480 samples analysed for Cu, Mo, Pb, Zn; $6.19/sample	2,972.44
	Report Preparation		
	a)	Writing and Drafting Jan. 28 to Feb. 6, 1980; 9 days @ $80.00/day	720.00
	b)	Typing Feb. 17, 1980; one day @ $50.00/day	50.00
	c)	Supplies Jan. 28 to Feb. 17, 1980	45.00
		Total	$6,634.99

LEGEND

UPPER JURASSIC

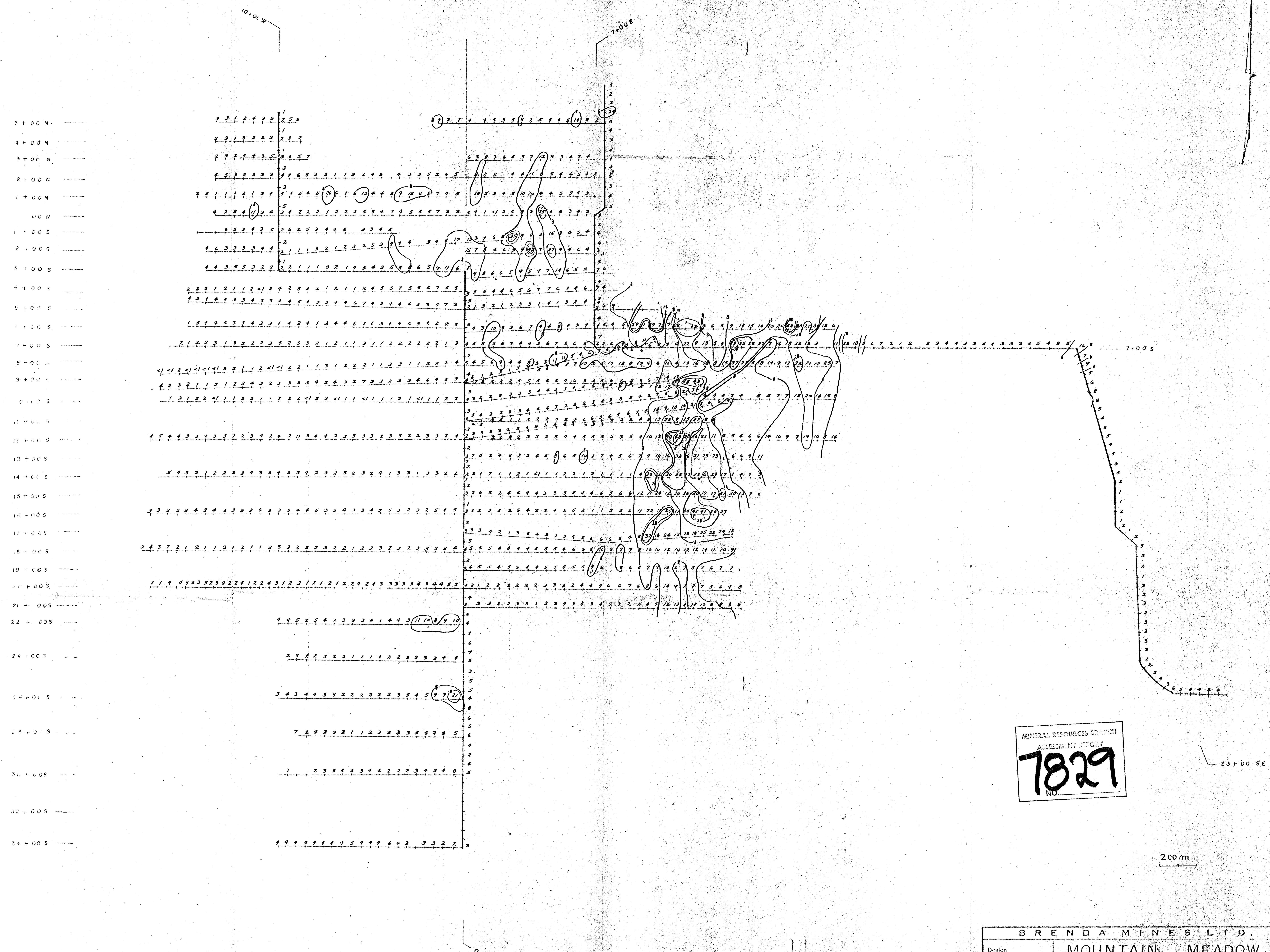
- QUARTZ DIORITE
- DIORITE PORPHYRY

LOWER JURASSIC and TRIASSIC

- ANDESITE
- ARGILLITE

- Outcrop
- Quartz Vein
- Mineralization ... Mo.
- Geological Boundary
- Bedding
- Foliation
- Strike and Dip
- Trench
- Road
- Trail
- Stream
- Marsh

BRENDA MINES LTD	
Design Drawn P. Bankes Check Approv.	MOUNTAIN MEADOW PROJECT
SCALE: 1:10,000	GEOLOGY Fig. 16



LEGEND

Contour Interval 10 ppm

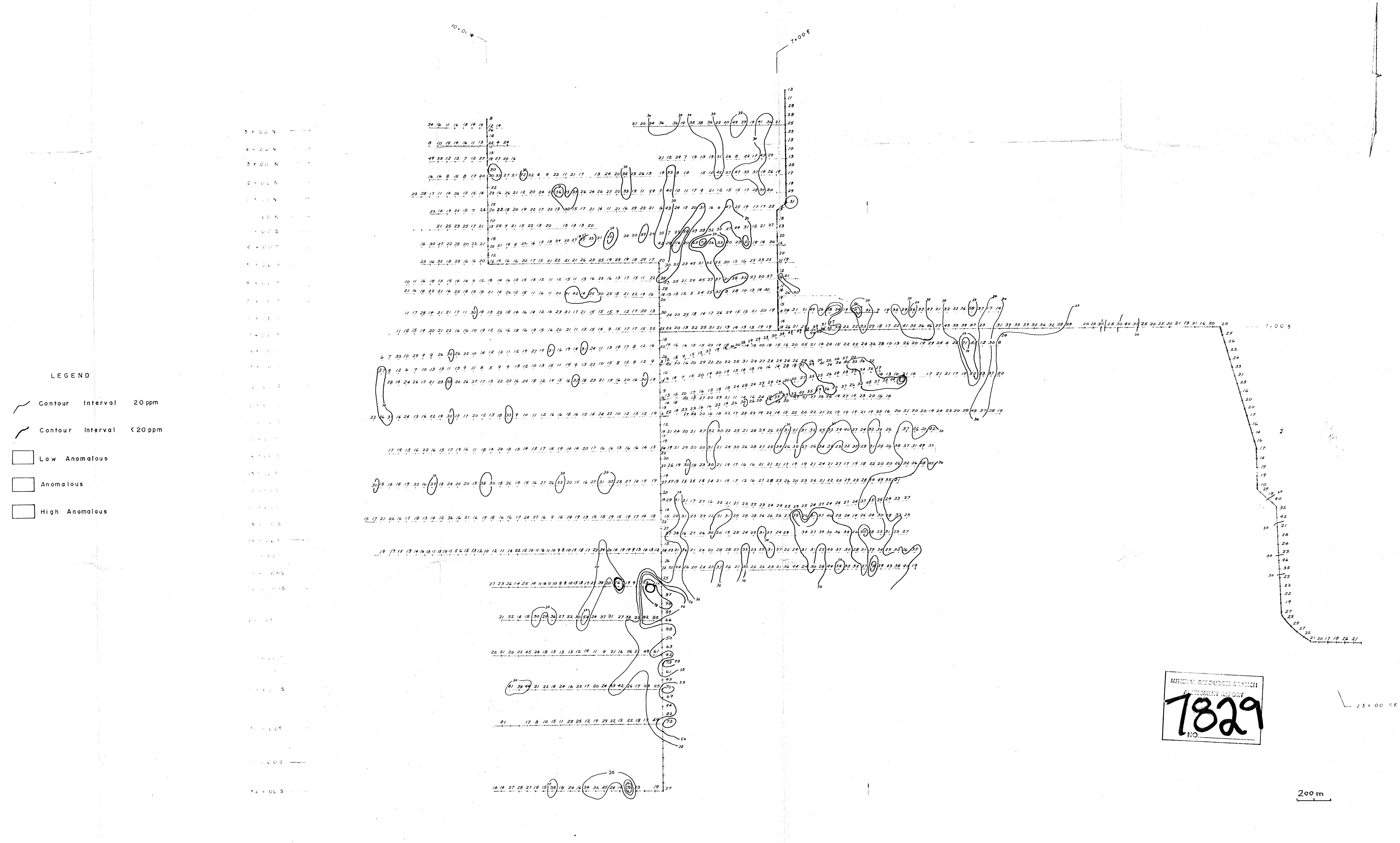
Low Anomalous

Anomalous

High Anomalous

BRENDA MINES LTD.	
Design Drawn Check Approv.	MOUNTAIN MEADOW PROJECT
SCALE: 1:10,000	GEOCHEM Mo Fig. 17

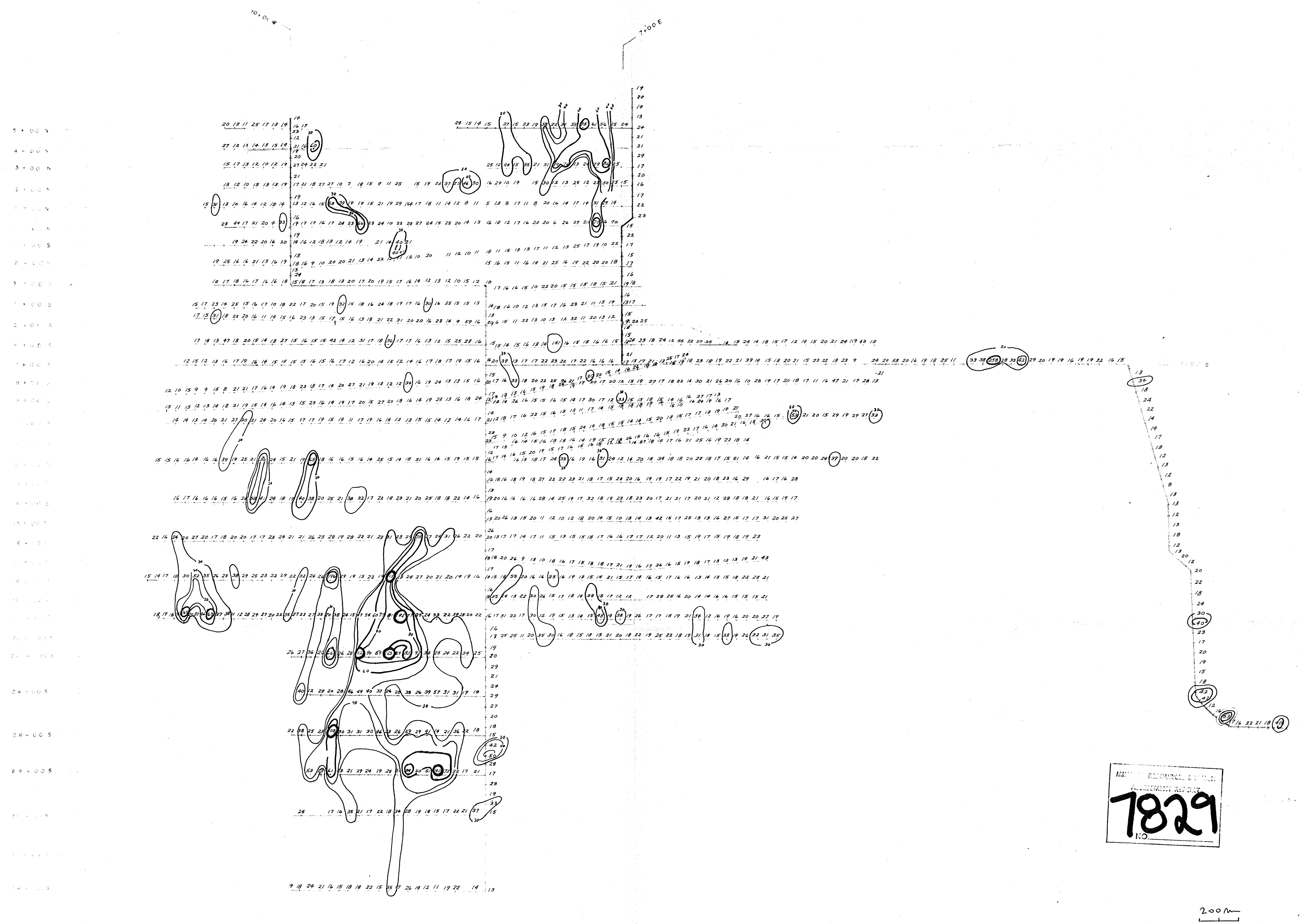
Rev. No. Revision



BRENDA MINES LTD.

MOUNTAIN MEADOW PROJECT

SCALE 1:10,000 GEOCHEM Cu Fig. 18



LEGEND

Contour Interval 10 ppm

Contour Interval 20 ppm

Contour Interval <20 ppm

Low Anomalous

Anomalous

High Anomalous

BRENDA MINES LTD.

MOUNTAIN MEADOW PROJECT

SCALE 1:10,000

GEOCHEM - Pb

Fig. 19


LEGEND
Contour Interval 50 ppm
Contour Interval 100ppm
Contour Interval <100ppm
Low Anomalous
Anomalous
High Anomalous
10+00 W
7+00 E
7+00 S
23+00 SE
0+00 W
200m
7829
B R E N D A M I N E S L T D.
Design
Drawn
Check
Approv.
MOUNTAIN MEADOW PROJECT
SCALE: 1:10,000
GEOCHEM Zn
Rev. No.
Revision